



naphthalenedicarboxylic acid are alkyl groups having 1 to 4 carbon atoms, alkylaryl groups and halogens.

5 Apart from naphthalenedicarboxylic acid, the polyalkylene naphthalates may contain up to 98 mol%, preferably up to 70 mol% of residues of other aromatic or cycloaliphatic dicarboxylic acids having 8 to 14 C atoms or aliphatic dicarboxylic acids having 4 to 12 carbon atoms, such as for example residues of phthalic acid, isophthalic acid, terephthalic acid, 4,4'-diphenyldicarboxylic acid, succinic acid, adipic acid, sebacic acid, azelaic acid, cyclohexanediactic acid.

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Apart from ethylene glycol or 1,4-butanediol residues, the preferred polyalkylene naphthalates may contain up to 20 mol%, preferably up to 10 mol%, of other aliphatic diols having 2 to 12 C atoms or cycloaliphatic diols having 6 to 21 C atoms, for example ethanediol, butanediol, 1,3-propanediol, 2-ethyl-1,3-  
15 propanediol, neopentyl glycol, 1,5-pentanediol, 1,6-hexanediol, 1,4-cyclohexanedimethanol, 3-ethyl-2,4-pentanediol, 2-methyl-2,4-pentanediol, 2,2,4-trimethyl-1,3-pentanediol, 2-ethyl-1,3-hexanediol, 2,2-diethyl-1,3-propanediol, 2,5-hexanediol, 1,4-di-( $\beta$ -hydroxyethoxy)benzene, 2,2-bis-(4-hydroxycyclohexyl)propane, 2,4-dihydroxy-1,1,3,3-tetramethylcyclobutane, 2,2-bis-  
20 (4- $\beta$ -hydroxyethoxyphenyl)propane and 2,2-bis-(4-hydroxypropoxyphenyl)propane (DE-A 2 407 674, 2 407 776, 2 715 932).

The polyalkylene naphthalates may be branched by incorporating relatively small quantities of tri- or tetrahydric alcohols or tri- or tetrabasic carboxylic acids, for  
25 example according to DE-A 1 900 270 and US-A 3 692 744. Examples of preferred branching agents are trimesic acid, trimellitic acid, trimethylolethane, trimethylolpropane and pentaerythritol.

Particularly preferred polyalkylene naphthalates are those which have been produced  
30 solely from naphthalenedicarboxylic acid and the reactive derivatives thereof (for example the dialkyl esters thereof) and ethylene glycol and/or 1,4-butanediol, and mixtures of these polyalkylene naphthalates.

The thermoplastic (co)polymers D1 contain 50 to 99, preferably 60 to 95 parts by weight of D.1.1 and 50 to 2, preferably 40 to 5 parts by weight of D.1.2.

- 5 Particularly preferred (co)polymers D1 are those prepared from styrene with acrylonitrile and optionally with methyl methacrylate, from  $\alpha$ -methylstyrene with acrylonitrile and optionally with methyl methacrylate or from styrene and  $\alpha$ -methylstyrene with acrylonitrile and optionally with methyl methacrylate.

The component D1 styrene/acrylonitrile copolymers are known and may be produced by free-radical polymerisation, in particular by emulsion, suspension, solution or bulk polymerisation. The component D1 copolymers preferably have molecular weights  $\overline{M}_w$  (weight average, determined by light scattering or sedimentation) of between 15000 and 200000.

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Further particularly preferred copolymers D1 according to the invention are random copolymers synthesised from styrene and maleic anhydride, which may be produced from the corresponding monomers by continuous bulk or solution polymerisation with incomplete conversion.

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The proportions of the two components of the random styrene/maleic anhydride copolymers suitable according to the invention may be varied within broad limits. The preferred content of maleic anhydride is 5 to 25 wt.%.

The molecular weights (number average  $\overline{M}_n$ ) of the component B random styrene/maleic anhydride copolymers suitable according to the invention may vary over a wide range. The range from 60000 to 200000 is preferred. A preferred intrinsic viscosity for these products is from 0.3 to 0.9 (measured in dimethylformamide at 25°C; *c.f.* in this connection Hoffmann, Krömer, Kuhn, *Polymeranalytik I*, Stuttgart 1977, pp. 316 *et seq.*).

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